

NAME

getopt — get option letter from argv

SYNOPSIS

```
int getopt (argc, argv, optstring)
int argc;
char **argv;
char *optstring;
extern char *optarg;
extern int optind;
```

DESCRIPTION

Getopt returns the next option letter in *argv* that matches a letter in *optstring*. *Optstring* is a string of recognized option letters; if a letter is followed by a colon, the option is expected to have an argument which may or may not be separated from it by white space. *Optarg* is set to point to the start of the option argument on return from *getopt*.

Getopt places in *optind* the *argv* index of the next argument to be processed. Since *optind* is external, it is normally initialized to zero automatically before the first call to *getopt*.

When all options have been processed (i.e., up to the first non-option argument), *getopt* returns EOF. The special option "--" may be used to delimit the end of the options; EOF will be returned, and "--" will be skipped.

DIAGNOSTICS

Getopt prints an error message on *stderr* and returns a question mark ('?') when it encounters an option letter not included in *optstring*.

EXAMPLE

The following code fragment shows how one might process the arguments for a command that can take the mutually exclusive options **a** and **b**, and the options **f** and **o**, which require arguments.

```
main (argc, argv)
    int argc;
    char **argv;
{
    int c;
    extern int optind;
    extern char *optarg;
    :
    while ((c = getopt (argc, argv, "abf:o:")) != EOF)
        switch (c) {

            case 'a':
                if (bflg)
                    errflg++;
                else
                    aflg++;
                break;

            case 'b':
                if (aflg)
                    errflg++;
                else
                    bproc();
```

```
        break;

    case 'f':
        ifile = optarg;
        break;

    case 'o':
        ofile = optarg;
        bufsize = 512;
        break;

    case '?':
        errflg++;
    }
    if (errflg) {
        fprintf(stderr, "usage: . . . ");
        exit (2);
    }
    for( ; optind < argc; optind++) {
        if (access (argv[optind], 4)) {
            :
        }
    }
}
```